

Response Under 37 CFR 1.116
Expedited Procedure
Examining Group 3661
Application No. 09/620,521
Paper Dated: January 20, 2004
In Reply to Office Action dated October 21, 2003
Attorney Docket No. 964-001183

REMARKS

Claims 1-3, 5, and 7-15 are pending in this application.

Finality of Office Action

Applicants respectfully request withdrawal of the finality of the outstanding Office Action. In paragraph 7 of the Office Action, the Examiner states that "Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL." Applicants respectfully disagree. In response to the previous Office Action of April 24, 2003, Applicants submitted a Response dated July 21, 2003 arguing for the allowability of the claims over the cited references but making no claim amendments. Therefore, Applicants' "amendments" could not have necessitated the new grounds of rejection since no amendments were submitted. Therefore, Applicants respectfully request withdrawal of the finality of the outstanding Office Action.

Rejections Under 35 U.S.C. § 103(a)

I. Claims 1, 3, 5, 7, 8, 10-13, and 15

Claims 1, 3, 5, 7, 8, 10-13, and 15 stand rejected for obviousness over the teachings of U.S. Patent No. 6,050,770 to Avitan in view of the teachings of U.S. Patent No. 4,530,057 to Ahlbom and EP 0637734 (EP '734). In view of the following remarks, reconsideration of these rejections is respectfully requested.

Claim 1 is directed to an industrial truck having a plurality of wheels, a load lifting system, and a drive system. The truck also includes a stabilizing device comprising a plurality of wheel load sensors, with each load sensor connected to an individual wheel and configured to measure a wheel load. The load sensors are connected to a monitoring device

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configured to control or regulate the load lifting system and/or the drive system of the truck based on the wheel load sensor data. At least two wheels of the truck have a speed-of-rotation sensor connected to the monitoring device. At least one wheel on the front axle of the truck has a wheel bearing with an integrated wheel load sensor.

Avitan discloses a stabilization system having a rear steer wheel 34 with an annular weight load transducer 86 that generates a signal indicative of the axial weight load on the rear wheel. As the Examiner notes, Avitan broadly discloses weight sensors in connection with one or more vehicle wheels to sense an approaching condition wherein the wheel is about to be lifted from a roadway. While Avitan does not expressly disclose the use of integrated wheel load sensors, the Examiner relies upon EP '734 for this teaching. As the Examiner also notes, Avitan does not teach or suggest an industrial truck in which at least two wheels of the truck have a speed-of-rotation sensor connected to the monitoring device. However, the Examiner relies upon Ahlbom (citing column 6, lines 46-58) for teaching the claimed speed-of-rotation sensors. Applicants respectfully disagree.

While EP '734 does disclose integrated wheel load sensors, there is no teaching or suggestion to incorporate these integrated wheel load sensors in combination with speed-of-rotation sensors into an industrial truck, as claimed in claim 1. Applicants enclose herewith a copy of U.S. Patent No. 5,503,030 (which is equivalent to the EP '734 reference) for the Examiner's convenience.

Additionally, Applicants respectfully disagree with the Examiner's characterizations of the teachings of Ahlbom. Contrary to the Examiner's statements, Ahlbom does not teach or suggest speed-of-rotation sensors. As is clear from the reference, Ahlbom is directed to a device for steering a wheeled vehicle along an intended path. The

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deviation of a linear marking from an index point in a linear detector 1 is used to measure the lateral deviation of the vehicle from a path L. The index point I of the linear detector 1 defines a curve T. The distance between the intended path L and the curve T is shown by the different Δx values in Fig. 1. From these Δx values, the attitude of the vehicle from the intended path L can be determined (Ahlbom at column 1, line 48 to column 3, line 40).

In paragraph 6 of the Office Action, the Examiner states that "...in review Ahlbom reference, column 6, lines 51-52, 'sensors 32 are placed at the unsteered wheels, to sense the rotation of the respective wheels', therefore, Ahlbom reference does disclose speed of rotation sensor." Applicants respectfully disagree. The Examiner is taking the quoted phrase completely out of context. The entire passage states "[s]ensors 32 are placed at the unsteered wheels, to sense the rotation of the respective wheels. The sensors are magnetic and sense the passage of teeth on toothed rims on the wheels, whereby the distance travelled can be determined." (emphasis added) Therefore, it is clear in Ahlbom that the sensors 32 are to determine the distance traveled used to calculate the Δx values for the Ahlbom system. As will be appreciated by one skilled in the art, speed is defined as distance divided by time. While Ahlbom does disclose sensing the distance traveled to determine a deviation from an intended path, there is no indication that the sensors 32 identified by the Examiner do anything more than measure the distance traveled by the wheels. Thus, the sensors 32 are not speed-of-rotation sensors as claimed in claim 1 but are clearly disclosed in Ahlbom as distance sensors to determine deviation from an intended path. Therefore, none of the cited references, either alone or in combination, fairly teaches or suggests the claimed invention of an industrial truck having the combination of at least one wheel on the front axle of the truck having an integrated wheel load sensor in combination with at least two wheels of the truck

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having speed-of-rotation sensors, with both the load sensor and speed-of-rotation sensors connected to a monitoring device. Therefore, claim 1 is believed to be patentable over the cited prior art and in condition for allowance.

Claims 3, 5, 7, 8, 10-13, and 15 depend either directly or indirectly from, and add further limitations to, claim 1. Since these claims depend from a claim believed to be in condition for allowance, these claims are also believed to be in condition for allowance. Additionally, with respect to claim 7, none of the cited references, either alone or in combination, fairly teaches or suggests that each speed-of-rotation sensor is integrated into a wheel bearing. As discussed above, Ahlbom does not disclose speed-of-rotation sensors. With respect to claim 11, the cited combination does not fairly teach or suggest that the two wheels with the speed-of-rotation sensors are located on the same axle. Therefore, for all of the above reasons, claims 3, 5, 7, 8, 10-13, and 15 are also believed to be patentable over the cited prior art.

II. Claims 2, 9, and 14

Claims 2, 9, and 14 stand rejected over Avitan, Ahlbom, and EP '734 as described above in further view of U.S. Patent No. 4,520,443 to Yuki et al. In view of the following remarks, reconsideration of these rejections is respectfully requested.

Yuki discloses a control device for an unloading mechanism for a truck. The Yuki device includes a load sensor 106 to detect the weight of a load carried by the truck in order to correct for horizontal positioning of the fork in accordance with the amount of bending of the upright and/or the fork due to the weight of the load (Yuki at column 7, lines 60-66). However, Yuki does not overcome the shortcomings discussed above with respect to the Avitan, Ahlbom, and EP '734 combination, particularly with respect to claim 1. Since

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claims 2, 9, and 14 depend from claim 1, claims 2, 9, and 14 are believed allowable for substantially the same reasons as discussed above with respect to claim 1.

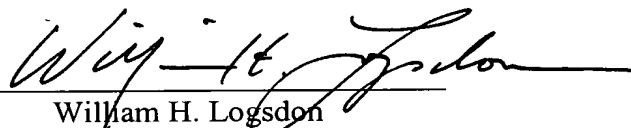
Conclusion

In view of the above remarks, withdrawal of the finality of the rejections, reconsideration of the rejections, and allowance of claims 1-3, 5, and 7-15 are respectfully requested.

Respectfully submitted,

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